

Commercial Aviation

Far Eastern Terminus

DESPITE the remarks beneath the picture, reproduced in last week's issue, of the *Phillipine Clipper's* arrival at Hongkong it should be stated that passengers are carried by Imperial Airways on their Penang-Hongkong service. At the time we were not aware that they were carried other than by special arrangement.

The Airports Exhibition

THE annual conference of the Aerodrome Owners' Association, and the airports' exhibition in connection therewith will be held on January 20, 21 and 22, at the Central Hall, Westminster, London, S.W.1.

It is expected that two or three hundred municipal representatives and private aerodrome owners will be attending, so that the exhibition should be a useful one for all concerned. In the Central Hall there is space for seventy-five medium-sized stands, the fee for each of which is only £5, and the position of each exhibitor will be decided by ballot.

Lisbon Service Resumed

IN spite of the events in Spain which have necessitated the suspension of the services calling at Madrid, Air France have now been able to re-establish a passenger service to Lisbon on a once-a-week basis. This has been made possible by co-ordinating the ordinary daily Air France service between Toulouse and Casablanca with the weekly service operated by Aero-Portuguesa between Tangier and Lisbon.

The Toulouse-Casablanca line has been diverted from Tangier to Fez as a result of the civil war, so that passengers must cover the Fez-Tangier link by train—a seven-hour journey. There is also an arrangement for a rail link of eight hours from Casablanca to Tangier. The Tangier-Lisbon weekly service runs every Thursday, leaving at 8.30 a.m. and arriving at 11.30 a.m. The return journey from Lisbon to Tangier is operated on Saturdays, leaving at 1 p.m. and arriving at 4 p.m.

Subsidy Modifications

IN a recently published White Paper details were given of the temporary subsidy arrangements for the African mail service. The terms of the expiring agreement will be continued to cover the period between January 23 and April 1, when the Short boats, as reported in last week's issue, will be put on the Durban route. Previously, the subsidy arrangements had been modified when South African Airways took over the Johannesburg-Cape Town section of the route.

Under the proposed agreement Imperial Airways will continue to be paid at the existing rate of £113,000 a year. For the Khartoum-Lagos service the subsidy will be fixed at £250 for each single trip as soon as the service is fully open to passenger traffic; in the meantime the figure will be £400, with a relative deduction according to the number of passengers carried.

The Vellox Accident

IT may be remembered that on August 10 Imperial Airways' Vickers Vellox crashed three minutes after taking off from Croydon on a night flight to Paris, and the accident department of the Air Ministry has now—four months later—published the findings of the inspector.

The machine, carrying only its crew, their personal belongings and some sand ballast, took off normally, flew straight in a south-westerly direction until it was well outside the aerodrome boundary and had climbed to a height estimated by officials on duty in the control tower to be in the neighbourhood of 500ft., when it began to turn to the left—in the direction of the regular aerodrome circuit and towards its course for Paris. Shortly afterwards the turn was changed to one to the right, through about 180 deg., the machine losing height as it did so, and ultimately crashing among houses about a quarter of a mile outside the western boundary. An outbreak of fire occurred and the four occupants lost their lives. The machine was completely destroyed.

As a result of his investigation, the inspector of accidents came to the following conclusions.—(a) That the accident was due to a sudden loss of engine power occurring in circumstances that were unfavourable for—and may even have rendered impossible—the carrying out of a successful forced landing. (b) That the cause of the sudden loss of engine power cannot be determined, but that the evidence is suggestive of the star-board engine having been either the first or the only engine to fail, and that the most likely cause was either some obstruction of the fuel system or incorrect setting of the fuel controls. A new type of engine was, incidentally, being used.

Winter in Finland

FOR the first time since the company started operations some thirteen years ago, Aero O/Y, Finland, expect to run a daily service between Stockholm, Abo, Helsingfors and Tallinn throughout next winter, when there will be aerodromes at all these points. So we may also expect to see outside operators extending their lines to Finland.

Incidentally, Aero O/Y's first internal airline, using the recently acquired D.H. Dragon Rapide, will link Helsingfors with the industrial centres of Tammerfors and Viborg. In due course the company hopes to run a service right up to the Arctic Sea, which has important tourist possibilities.

British Airways' Christmas

SINCE Christmas Day falls on a Friday, British Airways have decided to extend their normal week-end ticket arrangements to Paris so that passengers may leave on Thursday and return on Tuesday—a six-day return at the recently reduced week-end return fare of £5 12s. 6d. Trains will leave Victoria for Gatwick on Thursday at 9.28 a.m. and 12.28 p.m.

The Copenhagen and Malmo service will be run as usual on Christmas Day, though there will be no service on Boxing Day, and the Lille service is being suspended on both days. A special leaflet giving fuller details of the holiday arrangement can be obtained from Terminal House, Victoria, London, S.W.1.

Dublin's Airport

IT is now considered fairly certain that Dublin will have a civil airport in the near future. Officials of the Department of Industry and Commerce are at present in communication with the Dublin Corporation on the matter. At present machines use Baldonnel aerodrome, the headquarters of the Irish Free State Air Force, but the Government does not consider it desirable that a military centre should be used for civil purposes.

The Corporation, it is understood, is being asked if it would be willing to contribute £75,000 towards the initial cost of £150,000 and fifty per cent. of the annual charge (about £10,000). Collinstown, about eight miles from Dublin, is being spoken of as the probable site of the new airport. The site was used as an aerodrome during the War.

Transatlantic Navigation

SOME of the problems of long-distance air navigation were described by Mr. Francis Hughes, of Henry Hughes and Son, Ltd., in a lecture given before the British Horological Institute on December 9.

Although, he said, Britain has always, as a seafaring nation, held the premier position in the manufacture of general navigation instruments, her manufacturers had not, in flying instruments, had the same opportunities as those in the States. Aircraft, in any case, tended to develop more quickly than their navigational devices. The instrument board itself, he thought, was an interesting problem. Each instrument was of different value, and it was difficult to know how to arrange them to prevent eyestrain. Practical points could only be obtained from the people using the instruments.

The equipment of machines for Transatlantic services was now uppermost in the minds of the manufacturers. There were no radio stations in the ocean, and an error in navigational accuracy of 2 deg. would give an error of one mile in thirty, or twenty miles in six hundred. Since such long-distance flights would probably be made above the clouds, celestial navigation might be used more, though with some loss of accuracy relative to marine practice. An aircraft sextant, weighing less than five pounds, he explained, carried its own horizon. There was considerable opportunity for the airman who became proficient as a navigator.

The "deck watch" had been modified for the air. Mr. Hughes showed a Longines wrist watch with a rotating bezel marked in seconds, which was easily set against a centre seconds-hand and enabled G.M.T. to be read as well as on a chronometer. The time to the nearest minute was always known, and the rim was set correctly for seconds as soon as a time-signal started to come through.

The fact that the altimeter must be adjusted for different pressures was a disadvantage, and those who were enthusiastic over the marine echo-sounder must remember that air was not so satisfactory acoustically as water. In a ship the recording could be ultrasonic, but in the air it would have to be audible to avoid interference from engine noise. So far no echo sounder had been generally adopted for aircraft.